

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

NATIONWIDE MUTUAL FIRE
INSURANCE COMPANY, *et al.*,

Plaintiffs,

v.

BLACK AND DECKER (U.S.), Inc.,

Defendant.

Case No. 13-cv-14312
Honorable Laurie J. Michelson
Magistrate Judge R. Steven Whalen

**OPINION AND ORDER DENYING DEFENDANT'S MOTION TO EXCLUDE
PLAINTIFFS' EXPERTS [19] AND DEFENDANT'S MOTION FOR SUMMARY
JUDGMENT [20]**

In February 2012, a fire burned a significant portion of the home of Faye and Najieba Kamposh. Nationwide Mutual Fire Insurance Company, which insured the Kamposhes' home, paid the Kamposhes approximately \$265,000 for the damage. Nationwide believes that the cause of the fire was a charger to a Black & Decker hand-held vacuum cleaner. So Nationwide (along with the Kamposhes) filed this lawsuit seeking to recover from Black & Decker the money paid to the Kamposhes.

Two motions are presently before the Court. Black & Decker has moved pursuant to Federal Rule of Evidence 702 to exclude the testimony of two of Plaintiffs' expert witnesses. (Dkt. 19.) Black & Decker also seeks summary judgment, asserting that even if Plaintiffs' experts testified at trial, no reasonable jury could find in favor of Plaintiffs. (Dkt. 20.) As explained below, the Court believes that Black & Decker overlooks the very close connection between the origin of the fire and the cause of the fire at the Kamposhes' home and overstates

Plaintiffs' burden to identify a defect for their implied warranty claim. So the Court will deny both motions.

I.

The Court begins with Black & Decker's motion to exclude Plaintiffs' experts from testifying at trial.

A.

The parties agree on the general area of the Kamposhes' home where the fire originated. In particular, the parties agree that the fire started somewhere in the vicinity of a small, wooden table that stood against the north wall of the Kamposhes' kitchen. (*See* Mathews Feb. 24, 2012 Rep. at 1; Hooker Dep. at 16, 39, 44.) The small table appears on the right in this photo:



(Pls.' Resp. to Def.'s Mot. Summ. J. Ex. A.)

But the parties disagree as to the precise origin of the fire, which, as will be discussed, is closely tied to the cause of the fire. Black & Decker apparently maintains that the fire started in

or near a trash can by the small table and burned upwards from there. (See Hooker Dep. at 39, 44.) Nationwide claims that the fire started inside a charger for a Black & Decker hand-held vacuum that was plugged into an outlet above and to the left of the table. (Def.'s Mot. to Exclude Expert Ex. 2 at Pg ID 99, Hooker Investigation Report; Def.'s Mot. to Exclude Expert Ex. 4, Mathews Aug. 6, 2012 Rep. at 4.) The outlet (sometimes referred to by the experts as a duplex receptacle) is shown below:



(Pls.' Resp. to Def.'s Mot. Summ. J. Ex. A.) The Black & Decker charger is plugged into the top receptacle and a power strip is plugged into the bottom one.

In support of its claim that the Black & Decker charger started the fire, Nationwide relies on the expert opinions of Jack Hooker and Michael Mathews. The Court summarizes these two experts' qualifications, investigations, and opinions in turn.

1.

To opine on the origin of the fire, Nationwide retained Jack Hooker, a certified fire investigator. (*See* Pls.' Resp. to Mot. to Exclude Experts at 3; Hooker Dep. at 26; Def.'s Mot. to Exclude Experts Ex. 5, Hooker CV at 5.) For eight years, Hooker worked in the Fire Investigation Unit of the Michigan State Police. (Hooker CV at 1.) In 2007, Hooker co-founded State-Wide Consulting & Investigating, LLC and has since conducted about 100 fire investigations per year for insurance companies. (Hooker CV at 1; Hooker Dep. at 11.)

On February 7, 2012, Hooker (along with Mathews and Oak Park Department of Public Safety Fire Inspector Thomas Oaks) visited the Kamposhes' fire-damaged home. (Def.'s Mot. to Exclude Experts Ex. 2, Hooker Feb. 23, 2012 Rep.) As part of that visit, Hooker interviewed Plaintiff Faye Kamposh. She told Hooker that there were no smokers in the home, that there had been no cooking in the kitchen for over 24 hours, and, on the day of the fire, no one was home after around 9:15 a.m., when her sister picked up their mother, Plaintiff Najieba Kamposh. (Hooker Feb. 23, 2012 Rep. at 1.)

Hooker wrote in his report: "it was noted that the charging cord [of a hand-held vacuum] was plugged into an outlet on the north wall. An electric power strip was also plugged in. This power strip supplied power to a can opener, telephone, toaster oven and microwave oven. None of these appliances were in use and had not been used recently." (*Id.*) Hooker summarized his findings from the February 7, 2012 visit this way: "Our initial investigation showed the only known and competent ignition source in the area was the transformer/charging cord for the hand held vacuum. There were distinct burn patterns indicating that this item may [be] the ignition and area of origin for the fire. Mr. Mathews advised that the burn damage to the transformer appeared to be consistent with fire cause and not [that it was] attack[ed by fire]."*"* (*Id.*)

At his deposition, Hooker further explained his opinion as to the fire's origin. He testified, "I saw fire patterns that would have been not consistent with the fire originating near the table or under the table. The fire patterns indicated that the fire originated above the table and the only potential ignition source that I identified above the table was the duplex outlet and/or the devices that were plugged into it." (Hooker Dep. at 19.) Hooker explained that the Black & Decker charger, which was plugged into the top outlet, had more fire damage than the power strip, which was plugged into the bottom outlet, and if the fire had traveled from bottom up, "I would expect that there would be more damage to the item that was plugged into the lower outlet." (*Id.* at 49.) Hooker further opined that while there were flammable materials under the table (e.g., alcohol and cooking oil) "there was no ignition source" to light those materials. (*Id.* at 43.) He also testified that "[t]here was no ignition source for the trash can." (*Id.* at 42.)

2.

To opine on the cause of the fire, Nationwide retained Michael Mathews, a Licensed Master Electrician who operates Mathews Electric Consulting & Investigations, Inc. (See Pls.' Resp. to Mot. to Exclude Experts at 5; Def.'s Mot. to Exclude Ex. 8, Mathews CV at 1-2.) Mathews is also a member of the International Association of Arson Investigators and has investigated the cause of more than 500 fires. (Mathews CV at 2; Mathews Dep. at 8.) Mathews does not hold a college degree and is not an engineer. (Mathews Dep. at 8-9.) But, during his deposition in this case, Mathews was able to diagram and explain the basic design of a charger like the one recovered from the Kamposhes' home: "You have a primary and secondary side of the coil. The primary side is supplied with 120 volts. Output voltage is 14.4, I believe, in [the Black & Decker] one. The transformer [i.e., the charger] itself—the windings are set up to

reduce that input voltage to a defined output voltage for the device and it's supposed to supply power to it." (Mathews Dep. at 20; *see also id.* at 21–22.)

On February 24, 2012, Mathews prepared a report for Nationwide summarizing his February 7, 2012 site visit with Hooker. Mathews explained that during the visit, he determined that there were no signs of electrical activity that would cause a fire at either the power supply outside the home or at the electrical panel inside the home. (*See* Mathews Feb. 24, 2012 Rep. at 1.) "Branch circuit wiring extending" from the electrical panel also showed "no signs of fire origin or damage as a result of fire attack." (*Id.*) Mathews informed Nationwide that damage to the power strip plugged into the outlet above and to the left of the small table, as well as the can opener, phone charger, microwave, and toaster oven plugged into that power strip, "appear[ed] to be the result of fire attack." (*Id.* at 2–3.) But, wrote Mathews, "[s]ignificant fire damage to transformer [i.e., Black & Decker charger] suggests possible origin." (*Id.* at 2.) Mathews summarized his February 7 visit as follows: "Upon completion of our initial investigation we advised Mr. James Smith [at Nationwide] that we could not rule out the Dust Buster transformer at this time and requested that Black and Decker be put on notice before collecting any evidence." (*Id.* at 3.)

Mathews' February 24, 2012 report further provided that he, Hooker, and Black & Decker representatives returned to the Kamposhes' home on February 15, 2012 and collected evidence, including the power strip, the devices plugged into the strip, the duplex receptacle, and the small table. (*Id.* at 3.) Mathews explained, "While collecting these artifacts we did not find any additional evidence that changed our opinion as to the area of origin and possible involvement of the Black and Decker transformer. We were however provided with the original box this component was purchased in. During inspection of the box we found that this unit had

been returned to the merchant on 9/9/11 before being reduced in price and sold to our insured.” (Id. at 3.)

On August 6, 2012, Mathews prepared a second report for Nationwide. Mathews informed that his company had performed “a lab exam” of the recovered items and that each of the duplex receptacle, power strip, can opener, phone charger, microwave, and toaster oven had been “eliminated as being related to the cause of the fire.” (Def.’s Mot. to Exclude Ex. 4, Mathews Aug. 6, 2012 Rep. at 1–3.) But, as to the Black & Decker charger:

1. This device was found plugged into the top half of the duplex receptacle. Fire patterns showed fire extending upward and outward from this device. Fire damage to the interior melted yellow insulating media and consumed portions of the exterior plastic housing.
2. No sign of electrical activity was visible however 2 localized burn patterns on the transformer[’]s coil suggest heat extending outward from within to this area.

(Mathews Aug. 6, 2012 Rep. at 3.)

On December 14, 2012, Hooker met Mathews at his lab to conduct burn testing on two exemplar chargers that Mathews had obtained. (See Mathews Dep. at 46.)

Mathews explained at his deposition how he set up the experiment. He testified that visually, the only difference between the vacuum cleaners he bought and the one owned by the Kamposhes’ was their color. (Mathews Dep. at 16.) Further, by comparing the writing on the back of the recovered charger to that on the back of his two exemplars, Mathews could discern that the “output voltage loads, everything was identical.” (Mathews Dep. at 14; *see also* Mathews Dep. at 46.) Mathews acknowledged, however, that he had not done any chemical tests to determine whether the exemplars’ housing material was identical to the recovered charger’s. (Id. at 17.) As for the remainder of the setup, Mathews recalled: “We duplicated the installation, the type of box used, the type of device [i.e., outlet] used, the size of wiring used, the wall

coverings, the cover for the device, the plug strip that was plugged into the lower half [of the outlet]” (*Id.* at 12–13.)

Mathews also recounted how he conducted the experiment. He explained that he burned one exemplar by creating a fire on a counter “directly in front of the device in question.” (Mathew’s Dep. at 44.) Hooker, who prepared the only report on the exemplar testing (*see* Mathew’s Dep. at 16–17, 24), recalled the test this way:

A wood fire was built under the transformer during one of the test scenarios. The fire was able to spread upward toward the outlet and transformer. This did not produce damage that was similar to the original event. During this test it was also noted that multiple pieces of wood were burned to a point of almost complete consumption. A wooden table was located under and to the right of the outlet and transformer at the Kamposh home. The table top and all four legs survived the fire. Had the fire originated on, under or directly near the table, it would be expected that it would not have survived and would have suffered extensive damage as displayed during our test burn.

(Def.’s Mot. to Exclude Expert Ex. 2 at Pg ID 99, Hooker’s Investigation Rep. at 1.) Mathews used a blowtorch to burn the second exemplar. (Mathews Dep. at 45.)

Both Hooker and Mathews drew similar conclusions from the exemplar testing. According to Mathews, “both results show[ed] that the damage at the transformer couldn’t have been caused . . . from it being attacked by fire and that it would only suggest that the fire originated within the transformer because the back plate, which is a thicker material on the transformer closest to the device [i.e., duplex receptacle], actually protected the duplex receptacle on the portion of the cover plate during the fire.” (Mathews Dep. at 45–46.) According to Hooker:

It was noted during all tests that we were unable to replicate the damage that was displayed during the actual fire event at the Kamposh home. The exterior housing of the transformers remained mostly intact when attacked by fire. I feel that the extensive damage to the transformer in the Kamposh home was not caused exclusively by external fire attack. The heavy and isolated damage is consistent with fire originating at and more specifically from within the device. . . .

All indications are that the damage to the transformer in the Kamposh home was not the result of fire attack only. The damage is consistent with fire originating at or within the device.

(Hooker Investigation Report at 1.)

At his deposition, Mathews testified that his opinion was that the fire started inside the charger. (Mathews Dep. at 26.) When asked to explain the bases for this opinion, Mathews stated,

Localized heat patterns on the transformer itself, fire damage extending outward from the coils, and fire damage to items around that device such as the supply cord for the plug strip that was plugged in directly beneath that transformer shows signs of radiant heat damage on the top half of that extending down from the transformer and then the patterns that we see moving up and outward from that device.

(Mathews Dep. at 26.)

B.

“A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:”

- (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. Or, as the Supreme Court concisely stated in *Daubert v. Merrell Dow Pharm., Inc.*, this Court must decide whether Hooker’s and Mathews’ expert opinions “rest[] on a reliable foundation and [are] relevant to the task at hand.” 509 U.S. 579, 597 (1993). In assessing reliability, the Supreme Court has said that federal trial courts are to consider “whether a theory

or technique . . . can be ‘and has been tested’”; “whether the theory or technique has been subjected to peer review or publication”; “the known or potential rate of error”; and “general acceptance.” *Daubert*, 509 U.S. at 593–94. But “[t]he factors identified in *Daubert* may or may not be pertinent in assessing reliability, depending on the nature of the issue, the expert’s particular expertise, and the subject of his testimony.” *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 150 (1999).

The proponent of expert testimony, here Nationwide, has the burden of showing by a preponderance that its experts are qualified and their methods reliable. *See* Fed. R. Evid. 702 advisory committee note (2000); *Daubert*, 509 U.S. at 593 n.10. Still, exclusion remains the exception, *see* Fed. R. Evid. 702 advisory committee note (2000), and “[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence,” *Daubert*, 509 U.S. at 596. The decision whether to admit expert testimony falls squarely within this Court’s discretion. *See United States v. Ashraf*, 628 F.3d 813, 826 (6th Cir. 2011); *Johnson v. Manitowoc Boom Trucks, Inc.*, 484 F.3d 426, 430 (6th Cir. 2007).

1.

Black & Decker argues that neither Hooker nor Mathews should be permitted to testify as to the cause of the fire. (Def.’s Mot. to Exclude Experts at 4–8.) The Court agrees only to this extent: neither Hooker nor Mathews can competently opine on what happened inside the charger recovered from the Kamposhes’ home to cause a fire. Hooker testified that he was not an engineer and that his role was to look at burn patterns to determine the fire’s origin—not its cause. (Hooker Dep. at 26–27.) As for Mathews, although he is a master electrician with knowledge of how chargers transform incoming voltage to something suitable for recharging a

battery (*see* Mathews Dep. at 20), he did not consider himself an engineer or an expert in the design or manufacture of chargers similar to the one recovered from the Kamposhes' home. (Mathews Dep. at 8–9, 19.) And while Mathews' knowledge renders him qualified to opine on how chargers can start fires, Mathews repeatedly acknowledged that he could not say how the particular charger recovered from the Kamposhes' home started one: "I don't have a cause of failure with that device, I have not identified it . . ." (Mathews Dep. at 37–38; *see also id.* at 31, 51–52.) Accordingly, neither Hooker nor Mathews may opine on precisely how the Black & Decker charger started the fire.

But it does not follow, as Black & Decker argues, that because Hooker and Mathews cannot explain the mechanism in which the fire started, their expert opinions are based on unreliable methods or are irrelevant to an issue in dispute. Black & Decker's position ignores the close tie between fire origin and fire causation in this particular case. Hooker, who is competent to and did examine the burn patterns in the Kamposhes' kitchen, has opined that the fire started near the outlet above and to the left of the small table and that the "the burn damage to the [charger] appeared to be consistent with fire cause and not [being] attack[ed by fire]." (Hooker Feb. 23, 2012 Rep. at 1; *see also* Hooker Dep. at 19.) And Mathews, a master electrician, has opined that—with the exception of the Black & Decker charger—he was able to eliminate all of the other electrical sources in the area of the outlet as the source of the fire. (Mathews Dep. at 38; *see also* Mathews Feb. 24, 2012 Rep. at 2–3.) He has also explained how it is possible for a charger to cause a fire: "If you have repetitive arcing at 120 volts you can sustain heat long enough to ignite ordinary combustibles. An NB cable doesn't get to a temperature hot enough to cause a fire under normal usage and even when abused. However, it eventually breaks down, it eventually fails and at that point you have an electrical event which as on the low scale is 1800

degrees Fahrenheit. If it's allowed to sustain . . . then you can see temperatures rising over 3,000 degrees Fahrenheit." (Mathews Dep. at 31.) Thus, Mathews and Hooker reached their opinions about the precise origin of the fire by reasoning as follows: (1) the fire started around an outlet with exactly two items plugged into it, a Black & Decker charger and a power strip, (2) none of the outlet, the power strip, or the items plugged into the strip started the fire, and (3) as a general matter, a charger like the Black & Decker charger can start a fire. Although Black & Decker might disprove one or more of these premises, this *method* of identifying the cause of the fire is reliable. *See Breidor v. Sears, Roebuck & Co.*, 722 F.2d 1134, 1139 (3d Cir. 1983) ("Emory was prepared to testify that he had eliminated *all* possible causes of the fire except for an electrical malfunction in the thermostat. . . . [T]he mere fact that Emory could not identify a specific defect does not mean that he was speculating when he offered his expert opinion as to the cause of the fire."); *Gichner v. Antonio Troiano Tile & Marble Co.*, 410 F.2d 238, 247 (D.C. Cir. 1969) ("[W]here a fire investigator identifies the cause of a fire in terms of probabilities, as opposed to mere possibilities, by eliminating all potential causes of the fire but one, that testimony is not only relevant, but in some circumstances may be a basis for decision."); *see also Bammerlin v. Navistar Int'l Transp. Corp.*, 30 F.3d 898, 902 (7th Cir. 1994) ("Sherlock Holmes observed that 'when you have eliminated the impossible, whatever remains, however improbable, must be the truth'. A. Conan Doyle, *The Sign of Four* ch. 6. Courts need not disdain a method that both engineers and detectives find useful.").

Black & Decker resists this conclusion by pointing out that Mathews' method fails to account for fuses inside the charger that, according to Black & Decker's expert, conclusively show that the charger could not have been the ignition source. (Def.'s Mot. to Exclude Experts at 11–12.) One of Black & Decker's experts, Donald Hoffman, Ph.D., has identified a thermal fuse

and a “primary lead wire” fuse in the photographs of the charger recovered from the Kamposes’ home, with the former opening when the internal temperature of the charger exceeds a certain temperature and the latter opening if current exceeds a certain threshold. (Hoffman Dep. at 42–44, 46.) Because the thermal fuse was open and the primary lead wire was closed, Hoffman opines that there was no current overload and that an external fire must have attacked the charger. (*Id.*) Black & Decker says that for “Plaintiffs’ theory to be reliable, the transformer must have faulted and generated sufficient internal heat to create and ignite a fire. That simply cannot happen, especially with the fuse protection that went overlooked by Mr. Mathews.” (Def.’s Mot. to Exclude Experts at 11.)

Hoffman’s testimony regarding the state of the fuses in the charger does not warrant excluding Plaintiffs’ expert testimony for two reasons. *First*, whether there were fuses in the recovered charger is disputed. Despite being informed that Black & Decker’s expert identified fuses in the recovered charger, Mathews held firm to his position:

[MATHEWS:] I can tell you that we did some pretty destructive examinations of the [charger] removed from the loss site and the original fuse protection inside it on that.

Q You didn’t see a fuse in the actual subject charger that was in the Kamposh house; is that what you’re telling us?

A Absolutely not, yeah. There is no other current protection inside the transformer itself.

* * *

Q Can you refute what [our expert, David Sitter] says in his report that there was a fuse in the transformer in question that was open?

A I see absolutely no signs of a fuse even in . . . photographs of the transformer. There’s no evidence of a fuse there. If there was a fuse then it was completely consumed and there was absolutely nothing left of it. . . .

[I]f Mr. Sitter says there was a fuse in place it certainly wasn't there during his and my examination of this device. So . . . if he's coming up with that conclusion based on a drawing of that transform[er] then it's not an opinion based on what's actually—was recovered from the scene.

(Mathews Dep. at 22, 40–42.)

Second, Black & Decker's argument attacks Mathews' conclusion—that the fire originated inside the charger—as opposed to the method used to reach that conclusion. On this point, *Bitler v. A.O. Smith Corp.*, 400 F.3d 1227 (10th Cir. 2004), is instructive. There, Fred Bitler suffered serious injuries from a gas explosion in his basement. *Id.* at 1230. His experts opined that the likely cause of the explosion was that copper sulfide buildup prevented a safety valve from closing completely, thereby allowing gas to leak. *Id.* at 1231. They reached this conclusion by employing the “process of reasoning to the best inference,” i.e., “a process of eliminating alternative possible causes, determining that these possibilities were improbable sources of the explosion, and arriving at a highly probable cause for the gas leak.” *Id.* at 1237. The defendant challenged the reliability of this method by arguing that the sulfide-buildup theory did not “fit” with certain evidence: that “the safety valve at issue [was] a screened valve, and no screened valve had ever been shown to allow sufficient copper sulfide downstream so as to cause a gas leak” and that the particular valve recovered from the scene “functioned properly when tested after the accident.” *Id.* at 1238. The Tenth Circuit Court of Appeals was unconvinced. It reasoned that the defendant's “argument confuse[d] a *Daubert* inquiry into relevant ‘fit’ with the jury question of which theory, plaintiffs' or defendant's, best captures the truth of the matter at issue.” *Id.* at 1238. “The former inquiry,” the appellate court continued, “is aimed at determining if ‘a valid scientific connection to the pertinent inquiry’ obtains as a precondition to the admissibility of expert testimony. Here, the expert testimony ‘fits’ because it involves a reliable method that would aid the jury in resolving a factual dispute; whether the jury finds that the

testimony ‘fits’ their best assessment of the truth of the matter is an altogether different issue.” *Id.* at 1238 (citation omitted).

Bitler persuasively addresses Black & Decker’s argument regarding Mathews’ alleged failure to account for fuses in the charger. Mathews applied the process-of-reasoning-to-the-best-inference method in an attempt to eliminate possible sources of the fire. This method led him to eliminate all but the Black & Decker charger. Based on this and other evidence, Mathews opines that the charger was the ignitor. A jury may not agree with Mathews’ opinion—but that does not mean that the method he used to reach it is unreliable. *See United States v. Stafford*, 721 F.3d 380, 393–94 (6th Cir. 2013) (“To determine the testimony’s reliability, the court does not determine whether [the opinion] is correct, but rather [determines] whether it rests upon a reliable foundation.” (internal quotation marks omitted)).

The Court finds that, more likely than not, Hooker’s and Mathews’ methods for determining the cause of the fire are reliable.

2.

Black & Decker also asserts that Hooker and Mathews’ burn testing of the two exemplars is unreliable. (Def.’s Mot. to Exclude Experts at 10–14.) In particular, Black & Decker argues that the exemplar testing did not follow the scientific method, that the exemplars that Mathews and Hooker tested were different than the one recovered from the fire, and that the test fires were not representative of the one that burned the Kamposhes’ home. (*Id.*) Although Hooker and Mathews’ exemplar testing might have been more thorough, the Court does not find the methods they used unreliable under Rule 702 and *Daubert*.

As an initial matter, the Court notes that even if Black & Decker’s arguments had merit, they would not warrant wholly excluding Hooker’s and Mathews’ testimony about the precise

origin of the fire. Hooker's opinion as to the origin is based in significant part on the burn patterns and fire damage in the Kamposhes' kitchen. Mathews' opinion as to the origin is based in significant part on his examination of the scene and the elimination of other electrical devices in what he and Hooker believe is the area of origin. The exemplar testing was merely an attempt to confirm what other evidence had already led Hooker and Mathews to believe. (See Mathews Dep. at 17 (indicating that exemplar testing supported his earlier expert reports).)

In any event, the Court does not find the exemplar testing to have been based on unreliable methods. As to Black & Decker's claim that Mathews failed to follow the scientific method,¹ Black & Decker relies in part on the following testimony:

Q Do you know what the scientific method is?

[MATHEWS:] Yes.

Q Can you explain it to me, please.

A Yeah. It's the—through testing and validation performing procedures that will provide you with data—I can't explain it, no. I understand what it is but I'm having a hard time explaining it.

Q With respect to the testing that you and Mr. Hooker did, did you follow the scientific method in setting up those tests or do you just do the test?

A No, we set the exemplars and the systems up as they were at the time of the fire.

(Mathews Dep. at 32.) The foregoing does not show that Mathews failed to follow the scientific method. Although Mathews had trouble explaining the scientific method, he said he understood it. And, in regard to Black & Decker's counsel's compound question, Mathews arguably testified

¹ The scientific method is “now commonly represented as ideally comprising some or all of (a) systematic observation, measurement, and experimentation, (b) induction and the formulation of hypotheses, (c) the making of deductions from the hypotheses, (d) the experimental testing of the deductions, and (if necessary) (e) the modification of the hypotheses.” Oxford English Dictionary Online, *scientific method*, <http://www.oed.com/view/Entry/383323> (last visited July 10, 2015).

that he did not “just do the test” as opposed to, as Black & Decker claims, not “follow[ing] the scientific method.” *Embs v. Jordan Outdoor Enterprises, Ltd.*, 617 F. Supp. 2d 680, 698 (S.D. Ohio 2008) (“As a result of the compound question, it is unclear whether the witness is responding with the same answer to both.”). In any event, Mathews’ testimony indicates that he replicated all the material conditions of the Kamposhes’ home in testing the exemplars. Whether labeled “scientific” or otherwise, Black & Decker does not say why reproducing material conditions is not a reliable method.

Black & Decker also argues that the scientific method involves hypothesis testing, and, given that “the hypothesis of Mr. Hooker and Mr. Mathews is that the fire originated near the transformer, and possibly inside of it,” “the scientific method would dictate that the Plaintiffs’ proffered experts should have examined and/or tested the internal components of the transformer and identical exemplars under the same conditions that existed at the time of this fire.” (Def.’s Mot. to Exclude Experts at 10.) Black & Decker points out that neither Hooker nor Mathews did “any tests to determine whether anything failed inside of [the charger that] could have ignited and caused this fire.” (*Id.* at 11.)

The Court does not agree. True, Hooker and Mathews’ hypothesis is that Black & Decker’s charger started the fire. But this does not mean that the only valid way to test this hypothesis is to test the inner workings of the charger. The fire must have started either outside the charger or inside of it. If a test could eliminate the possibility that the fire started outside the charger, then that test could, by direct implication, all but prove Hooker and Mathews’ hypothesis. And that is what Hooker and Mathews set out to do via external burn testing.

Black & Decker also argues that the exemplar testing was fundamentally flawed because the exemplars were different from the one recovered from the Kamposhes’ home. But Black &

Decker cites no evidence backing its claim. (See Def.’s Mot. to Exclude Experts at 13–14.) Black & Decker merely points out that Hooker and Mathews cannot say with certainty that the exemplars were identical to the charger in question. (*Id.*) But Mathews testified that he believed the exemplars to be identical, that the exemplars accompanied hand-held vacuums that were visually identical, save for color, to the Kamposhes’, and that the printed information on the back of the exemplars matched that of the recovered charger. (Mathews Dep. at 14–16.) This is sufficient for Nationwide to show, by a mere preponderance, that the exemplars were materially identical to the one recovered from the Kamposhes’ home.²

Black & Decker also asserts that Hooker and Mathews’ exemplar testing is “junk science at its finest” because the fire they used to burn the exemplars was hotter than the fire that burned the Kamposhes’ home. (Def.’s Mot. to Exclude Experts at 12–13.) This argument might be logically sound if the exemplars ended up damaged *more* than the recovered charger. But Mathews and Hooker both testified that the exemplars were damaged *less* than the recovered charger. Thus, the fact that more external heat produced less damage to the exemplars supports Mathews and Hooker’s hypothesis that the fire damage to the recovered charger was not solely attributable to exposure to an external fire.

The Court finds it more likely than not that Mathews’ exemplar testing was based on reliable methods.

² Although Black & Decker has not provided the Court with David Sitter’s deposition transcript or his report, based on Black & Decker’s deposition of Mathews, it appears that Sitter has opined that the exemplars are not the same as the one recovered from the fire. (Mathews Dep. at 15.) Even so, Black & Decker has provided the Court with no basis to infer that the differences are material to the testing Mathews performed. To the contrary, an affidavit by Sitter asserts that the model of hand-held vacuum owned by the Kamposhes is materially identical to a related model that differs only in color. (Def.’s Mot. Summ. J., Sitter Aff. ¶¶ 2, 4.) Notably, Mathews said that the only thing he could identify as different between his exemplars and the Kamposhes’ vacuum was color.

* * *

In sum, the Court will permit Hooker and Mathews to testify that the cause of the fire was the Black & Decker charger recovered from the Kamposhes' home. And they can support that opinion by discussing the results of their exemplar testing. But the Court will not permit Hooker or Mathews to opine as to what happened inside the charger to cause the fire—Hooker and Mathews simply do not know.

II.

Black & Decker argues that even if Hooker and Mathews are permitted to offer expert opinion testimony at trial, it is nonetheless entitled to summary judgment. (Dkt. 20, Def.'s Mot. Summ. J. at 1 n.1.)

A.

“The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). Because Black & Decker moves for summary judgment, the Court views the evidence, and any reasonable inferences drawn from the evidence, in the light most favorable to the non-movants, Nationwide and the Kamposhes. *See Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986).

B.

1.

Before addressing the parties’ summary-judgment dispute, the Court addresses an undisputed point. Count II of Plaintiffs’ Amended Complaint asserts that Black & Decker breached an express warranty of merchantability by making and distributing a vacuum that was

not fit for ordinary use. (*See* Am. Compl. ¶¶ 25–33.) But Black & Decker points out that “Plaintiffs have not come forward with any express warranty that they believe was breached in any form.” (Def.’s Mot. Summ. J. at 2.) The Court agrees. (*See generally* Pls.’ Resp. to Def.’s Mot. Summ J.) Summary judgment is thus warranted on Count II. *See Horton v. Potter*, 369 F.3d 906, 909 (6th Cir. 2004) (“The moving party discharges its burden by showing—that is, pointing out to the district court—that there is an absence of evidence to support the nonmoving party’s case. Once the moving party has met its burden of production, the nonmoving party must go beyond the pleadings and by affidavits, or by the depositions, answers to interrogatories, and admissions on file, designate specific facts showing that there is a genuine issue for trial.” (internal quotation marks, alterations, and citations omitted)).

2.

The parties’ summary-judgment dispute centers on Plaintiffs’ only other legal theory: that Black & Decker breached an implied warranty of merchantability because the Black & Decker hand-held vacuum (and charger) purchased by the Kamposhes “was not fit for its intended, anticipated, or reasonably foreseeable uses.” (Am. Compl. ¶¶ 14–24.) (Plaintiffs have more than two counts, but all are premised on a breach of an express or implied warranty. (*See* Am. Compl. ¶¶ 34–48.))

In support of its summary-judgment motion, Black & Decker offers two pieces of evidence. The first is an affidavit from David Sitter, a Senior Safety Assurance Manager for Black & Decker. (Def.’s Mot. Summ. J. Ex. 7, Sitter Aff. ¶ 1.) Sitter says that, when combining the sales of the model of the Kamposhes’ vacuum with a materially identical model in a different color, over 1,000,000 units were sold between September 2010 and July 2014, and “[f]rom September of 2010 through February 6, 2012, there have been no other incidents wherein it has

been alleged that a fire was caused by the[se] [two] DustBuster models or their respective transformers[.]” (Sitter Aff. ¶¶ 2–6.) (Notably, Sitter does not, as Black & Decker asserts (Def.’s Reply at 3–4), attest that over 1,000,000 vacuums have been sold without reported incident—he merely avers that there were no reports during an 18-month period, and there is no evidence regarding how many vacuums were sold during that period.)

Black & Decker also offers the deposition testimony (significant portions of which have not been provided to the Court) of one of its experts, David Hoffman, Ph.D. (Def.’s Mot. Summ. J. Ex. 8, Hoffman Dep.) As noted, Hoffman testified about two fuses in the charger: “Mr. Mathews testified that there was no fuse in the transformer. That’s completely wrong. There’s definitely a thermal fuse in the transformer. . . [T]here’s also a fuse intrinsically built into the transformer, which is the primary lead wire . . . [The thermal fuse] would open long before an internal fire could occur. . . I mean, if that transformer starts to overheat it’s going to open right away.” (Hoffman Dep. at 21, 44, 45.) Hoffman further explained his examination of the inside of the charger: “We measured primary winding resistance, so there was no shorting. We showed that the primary lead was not open, it was closed, meaning that there was no high current and we showed that there was no evidence of any heat generated from the primary windings. That’s the only way this product can fail.” (Hoffman Dep. at 46.) Hoffman also attacked Mathews’ theory about melted copper inside the charger:

He opined that melted copper could start the fire, which is also wrong. But he found no evidence of melted copper and he never went into the transformer. When we did our inspection within the transformer, it was clear that the transformer, the primary side of transformer was intact and, in fact, not shorted. There could be no melted copper on the primary side and the secondary side doesn’t contain enough energy to do that. So, without the primary side showing damage it’s impossible for the transformer to have melted copper and it’s impossible that the transformer started this fire.

(Hoffman Dep. at 21.)

As for Plaintiffs' evidence, Black & Decker correctly asserts Mathews "is not able to identify the cause of the alleged failure, and he is not able to say whether or not there was a manufacturing or design defect with this particular charger." (Def.'s Mot. Summ. J. at 5.) Indeed, Mathews testified:

Q As I understand from your report dated August 6, 2012, you were not able to identify what caused the failure?

A That's correct.

Q That's still as of today, you don't know why this charger may have failed?

A That's correct. . . . Actually, I don't know the actual cause of failure. I did eliminate a floating neutral, I did eliminate a power surge, I did eliminate lightning, I did eliminate the fact that it wasn't on a properly sized over-current protection device at the panel, I did identify that we had the correct polarity at the receptacle, I did identify that electrically the supply power to the transformer was appropriate.

Q So you're not able to tell me if there was a design defect or a manufacturing defect in the Black & Decker charger involved in this case, can you?

A Correct. . . .

Q You are unable to identify what, if anything, failed within that transformer?

A That's correct. I cannot identify the actual cause of failure.

(Mathews Dep. at 28–29.)

Given the foregoing evidence (or lack thereof) Black & Decker asserts that it "is entitled to summary judgment because the Plaintiffs have no proof of any defect with the Defendant's product or the cause of the fire." (Def.'s Mot. Summ. J. at 2.) Says Black & Decker: "The best [Mathews] can do is attempt to give an opinion that he cannot rule out the transformer as a cause of the fire because he ruled out other potential sources of ignition based upon the burn patterns and his blow torch tests. That is not enough. Plaintiffs still need to prove that the transformer was defective, and they cannot do that." (Def.'s Reply at 3.)

In *Kenkel v. Stanley Works*, 665 N.W.2d 490, 497 (Mich. Ct. App. 2003), the Michigan Court of Appeals made clear that “a plaintiff pursuing a claim of breach of implied warranty is not required to identify the precise defect in the product unless there are multiple actors to whom a malfunction could be attributed.” Instead, a plaintiff need only show that “*something* went wrong consistent with the existence of a defect,” and “a logical sequence of cause and effect between the alleged defect and the injury.” *Sundberg v. Keller Ladder*, No. 00-10117-BC, 2001 WL 1397290, at *6 (E.D. Mich. Nov. 8, 2001). “A product is defective if it is not reasonably fit for its intended, anticipated, or reasonably foreseeable use.” *Sundberg*, 2001 WL 1397290, at *6.

Auto Club Group Insurance Co. v. All-Glass Aquarium Co., 716 F. Supp. 2d 686 (E.D. Mich. 2010), is instructive on applying *Kenkel*’s rule. There, John and Andrea Nelson’s home was burned in a fire, and their insurer, Auto Club Group Insurance, paid to repair the damage and then sued All-Glass Aquarium, claiming that a light switch in the Nelsons’ All-Glass aquarium was at fault. *Id.* at 688. In support of its claim, Auto Club retained two experts. The first, James Maxwell, “examined the area around the aquarium and collected the surviving debris of the aquarium. He concluded that the fire originated near the top of the aquarium based on burn patterns, but he admitted that an electrical engineer would be required to determine the cause.” *Id.* at 688. So Auto Club hired Michael McGuire, an electrical engineer, who examined the materials that Maxwell collected and “concluded that the only possible cause of the fire was the light switch.” *Id.* at 688, 691.

In granting All-Glass summary judgment, the court explained that the cases applying *Kenkel*’s rule—that an implied-warranty plaintiff need not identify a precise defect—could “be broken into two categories.” *Id.* at 690. Where a plaintiff has established that the defendant’s product caused the injury (e.g., the homeowner testifies that he witnessed his toaster catch on

fire, *Norton v. Auto Club Group Insurance Co.*, No. 02:04-dv-40376, 2009 WL 884129, at *1 (E.D. Mich. Mar. 30, 2009)), it need not identify the precise product defect to succeed on a breach of implied warranty claim. *Auto Club*, 716 F. Supp. 2d at 690. On the other hand, “when causation has not been sufficiently alleged, the identification of the specific defect is required.” *Id.* at 691. Applying this rule to the facts before it, the court reasoned that Auto Club had not established which item caused the fire. For one, McGuire’s opinion that the aquarium’s light switch was the culprit was based in part on his belief that the switch was consumed in the fire. *Id.* at 688. But All-Glass’ expert “found the switch piece to be unharmed, which led him to conclude that the fire started from a different source.” *Id.* Further, McGuire had ruled out a brown extension cord as the cause of the fire because he had been told that “the cord was on the floor, rather than near the top of the aquarium.” *Id.* at 692. But, in fact, “the homeowner, . . . could not recall whether [the brown cord] was used for lighting at his bar or to operate a component of the aquarium.” *Id.* Moreover, All-Glass’ expert “testified that the brown extension cord displayed arcing 57 inches from the male end that was plugged into the power strip, which was consistent with the cord being used for the aquarium and being present near the top of the aquarium[.]” *Id.* The court thus found “that McGuire’s opinions as to causation [did] not rise above the speculative level,” that McGuire had “fail[ed] to identify a specific defect in the switch or a fault in the manufacturing process,” and that summary judgment was appropriate.

Applying the rule of *Kenkel* as refined by *Auto Club*, the Court finds that a jury could find that Black & Decker’s charger caused the fire, and thus, Nationwide need not identify a specific defect within the charger.

Although strong, much of Black & Decker’s evidence is genuinely disputed. As to Black & Decker’s claim that the state of the fuses in the charger conclusively show that the charger did

not cause the fire, Mathews' unambiguous testimony was that when he looked inside the charger, he saw no fuses. And while Hoffman testified that it was "impossible for the transformer [recovered from the Kamposhes' home] to have melted copper," and that there was "no evidence of any heat generated from the primary windings" (which was "the only way this product can fail"), Mathews opined that "2 localized burn patterns on the transformer[']s coil suggest heat extending outward from within to this area." (Mathews Aug. 6, 2012 Rep. at 3.) He also testified that if the charger in fact had fuses, "then they were completely consumed in the fire *and could be a potential source.*" (Mathews Dep. at 23 (emphasis added).) He further opined, "I don't have a cause of failure on this, it could have been *a variety of failures* that could have occurred within the transformer itself." (Mathews Dep. at 51.) As such, whether there were fuses in the charger, and whether "heat generated from the primary windings" is the "only way" that the charger could have failed are disputed issues of fact for the jury to resolve.

And if those disputed issues of fact are resolved in Nationwide's favor, Nationwide's other evidence would be enough for a reasonable jury to find that the charger was the cause. Hooker has opined that the fire originated at the outlet above and to the left of the small table in the Kamposhes' kitchen. Mathews has opined that none of the electrical sources connected to that outlet, except the charger, could have started the fire and that (as just noted) it is possible for the recovered charger to have started the fire. As such, a jury could reason as follows: (1) the fire started around an outlet with only two items plugged into it, a Black & Decker charger and a power strip, (2) the power strip (and items plugged into it) did not start the fire, (3) the charger recovered from the Kamposhes home was capable of starting a fire, (4) thus, the charger caused the fire.

Given that a reasonable jury could find that the charger caused the fire, the Court finds that Nationwide “is not required to identify the specific defect to survive summary judgment.” *See Auto Club*, 716 F. Supp. 2d at 690. It is enough that a reasonable jury could infer that a hand-held vacuum charger fit for its intended use does not start fires when left plugged into an outlet. Accordingly, the Court rejects Black & Decker’s assertion that Nationwide has failed to produce evidence permitting a reasonable jury to infer that the charger was “somehow defective” or the cause of the fire. (*See* Def.’s Reply at 3.) Black & Decker’s motion for summary judgment will thus be denied.

III.

In sum, Hooker’s and Mathews’ methods are reliable and their opinions will aid the jury in deciding Black & Decker’s liability. So the Court will thus permit Hooker and Mathews to testify that the cause of the fire was the Black & Decker charger recovered from the Kamposhes’ home and explain the results of their exemplar testing. The Court will not permit Hooker or Mathews to opine as to what happened inside the charger to start the fire. Black & Decker’s motion to exclude Hooker and Mathews’ testimony (Dkt. 19) is DENIED.

The Court also believes that a reasonable jury could infer from Hooker and Mathews’ testimony that the Black & Decker charger recovered from the Kamposhes’ home was the cause of the fire. This reasonable inference, coupled with the undisputed fact that chargers do not start fires absent a defect, give Plaintiffs the right to present their case to a jury. Black & Decker’s motion for summary judgment (Dkt. 20) is DENIED.

SO ORDERED.

s/Laurie J. Michelson
 LAURIE J. MICHELSON
 UNITED STATES DISTRICT JUDGE

Dated: July 13, 2015

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing document was served on the attorneys and/or parties of record by electronic means or U.S. Mail on July 13, 2015.

s/Jane Johnson
Case Manager to
Honorable Laurie J. Michelson